integra2group

FortiMail

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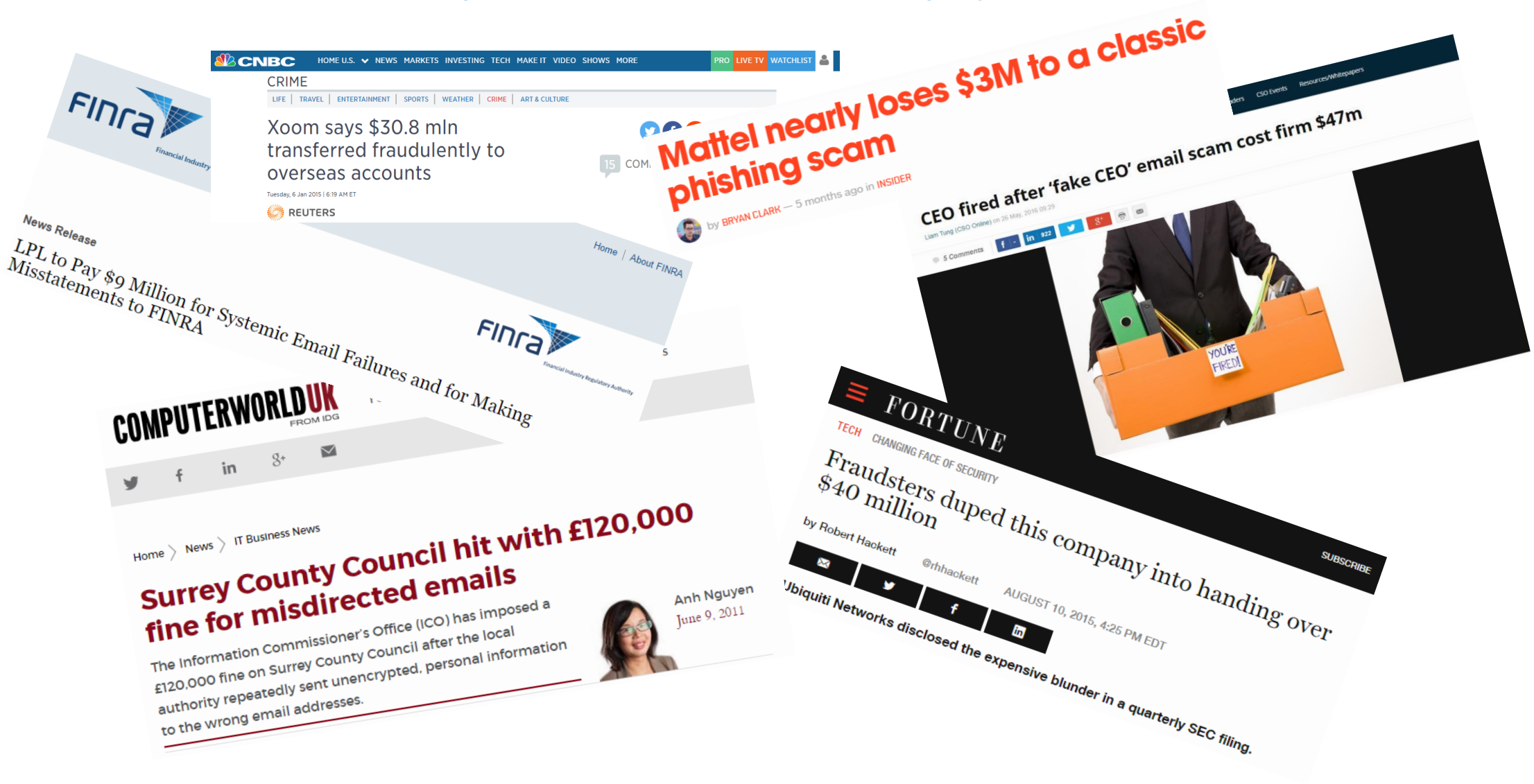
Gost predavač: Marko Ugrin, Fortinet
Case Study: Tommy d.o.o.
6.10.2021.

FortiMail

- Rizici email-a
- Što je to FortiMail
- Opcije zaštite i M365 integracija
- Case study
- Novosti u 7.0
- Q&A

To je samo email. U čemu je problem?



verizon

92.4%

of malware are delivered via email

49%

of malware was installed via email attachment[1]

FORTINET

15,071

Unique malware variants in 1Q18, an average of 170 every day of the quarter

$3.3bn

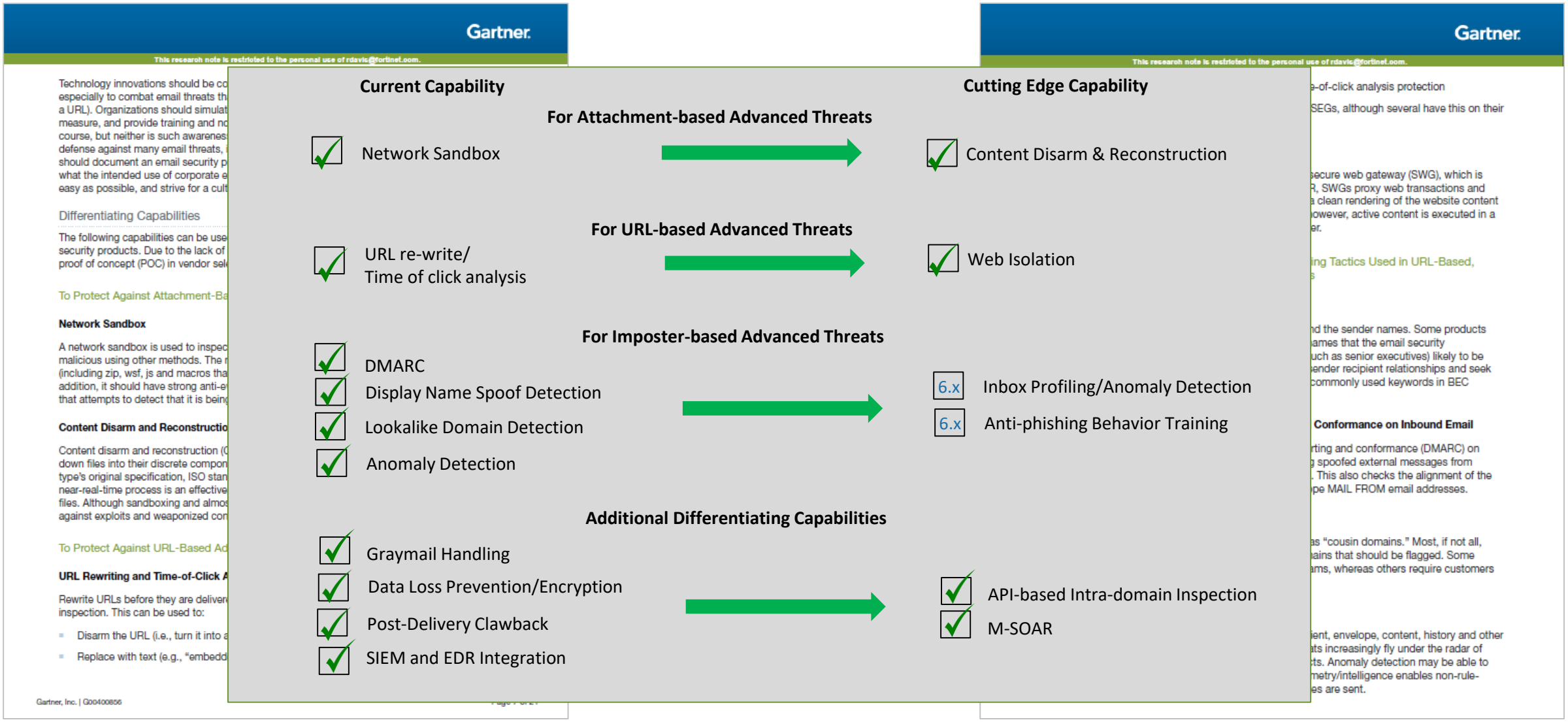
estimated cost of business email compromise, from 30,787 incidents from June 2016 to May 2018

Notes/Sources:

1. Verizon 2019 Data Breach Report. May 2019.
2. Fortinet Threat Intelligence Newsletters, 2018.
3. FBI. IC3. 2017 Internet Crime Report. May 2018.
4. Gartner Market Guide for Secure Email Gateways, June 2019.

Gartner

Security and risk management (SRM) leaders must revisit their organizations' email security architecture in the light of current email threats.


Gartner
This research note is restricted to the personal use of rdavis@fortinet.com.
Current Capability
Cutting Edge Capability
For Attachment-based Advanced Threats
Network Sandbox
Content Disarm & Reconstruction
For URL-based Advanced Threats
URL re-write/
Time of click analysis
Web Isolation
For Imposter-based Advanced Threats
DMARC
Display Name Spoof Detection
Lookalike Domain Detection
Anomaly Detection
6.x
Inbox Profiling/Anomaly Detection
6.x
Anti-phishing Behavior Training
Additional Differentiating Capabilities
Graymail Handling
Data Loss Prevention/Encryption
Post-Delivery Clawback
SIEM and EDR Integration
API-based Intra-domain Inspection
M-SOAR

FortiMail – Secure Email Gateway

Primary Challenges

Email common entry point for attackers

- Spam, attachments, phishing
- Targeted attacks

Compliance, privacy and data control

Users are major contributing factor to risk

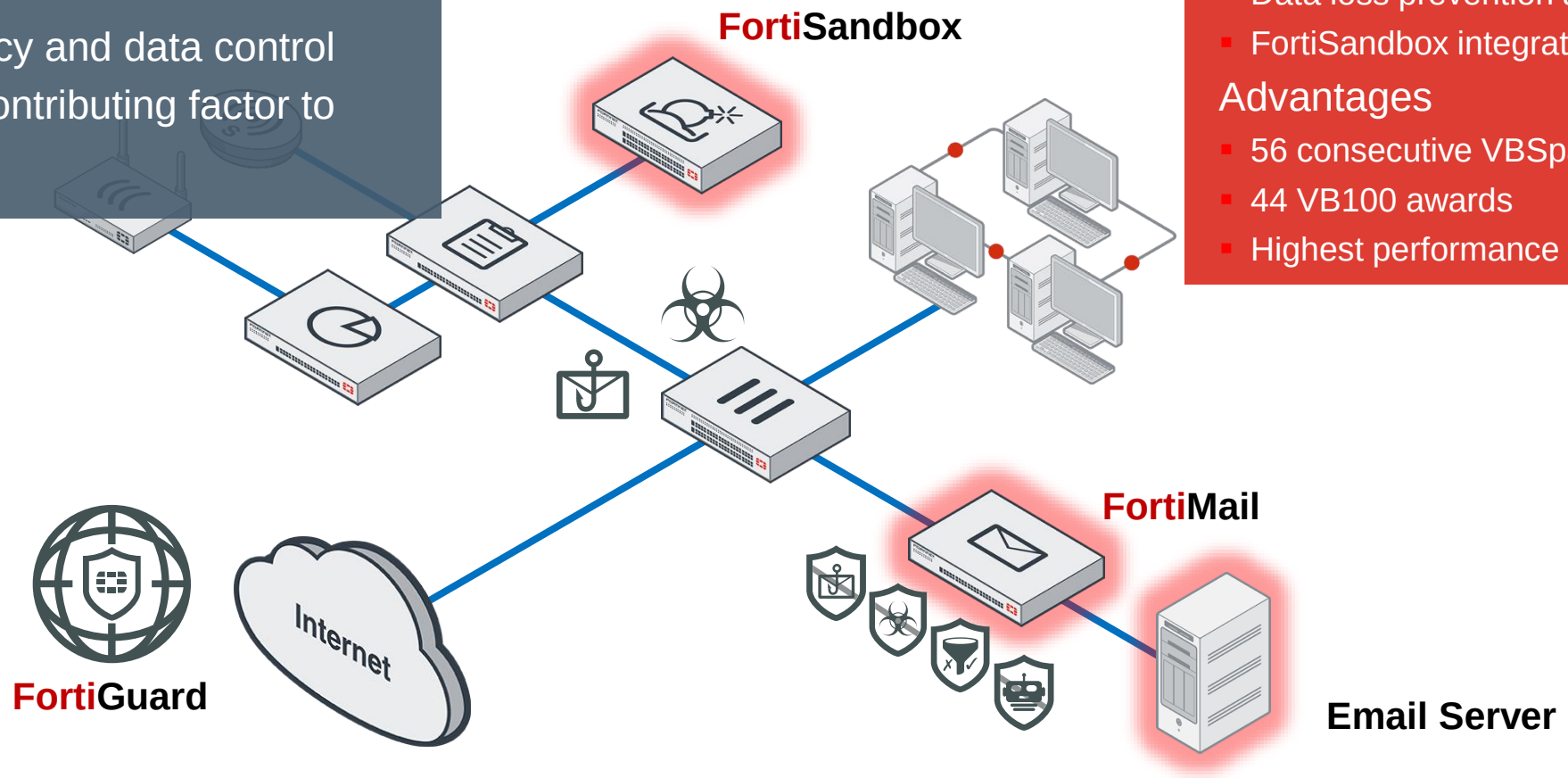
Solution

FortiMail Email Security

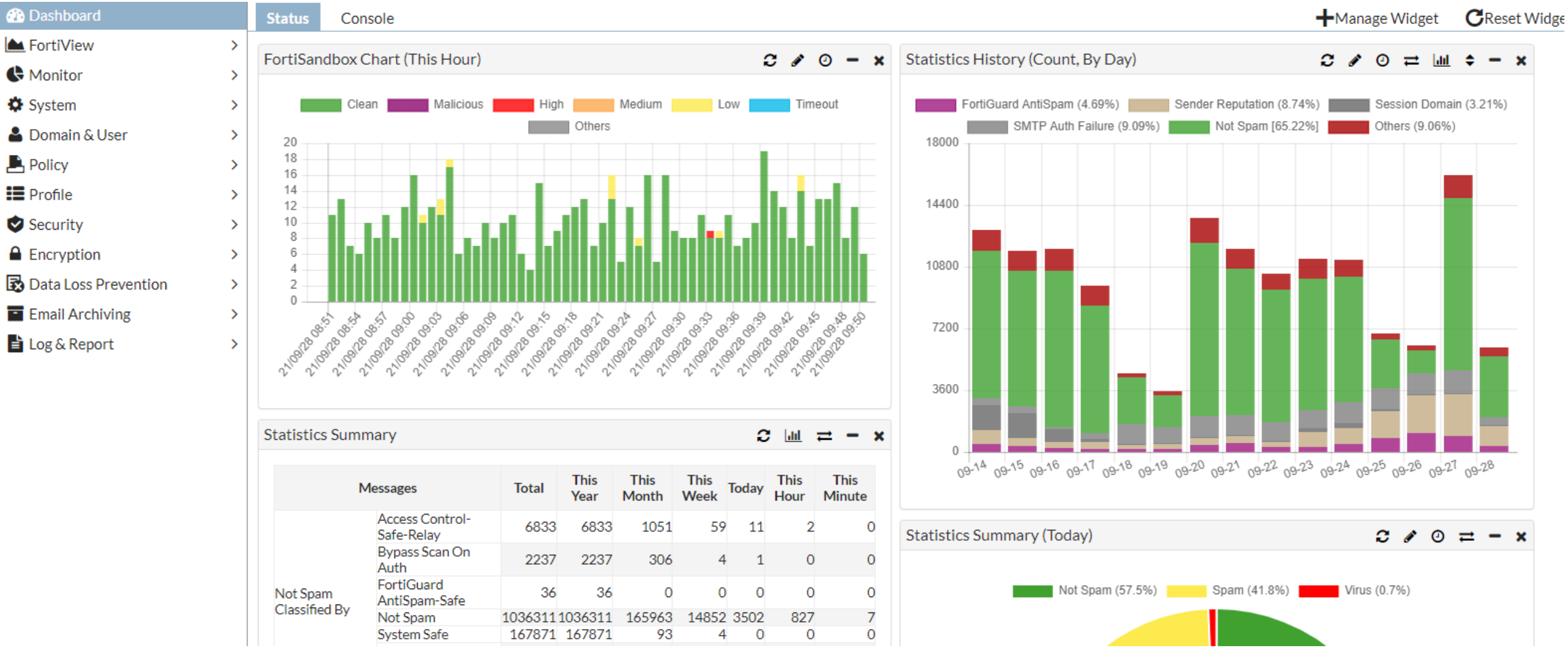
- Inbound and outbound threat protection
- Data loss prevention and encryption
- FortiSandbox integration

Advantages

- 56 consecutive VBSpam awards
- 44 VB100 awards
- Highest performance in industry



FortiMail: Secure Email Gateway



Messages		Total	This Year	This Month	This Week	Today	This Hour	This Minute
Not Spam Classified By	Access Control-Safe-Relay	6833	6833	1051	59	11	2	0
	Bypass Scan On Auth	2237	2237	306	4	1	0	0
	FortiGuard AntiSpam-Safe	36	36	0	0	0	0	0
	Not Spam	1036311	1036311	165963	14852	3502	827	7
	System Safe	167871	167871	93	4	0	0	0

FortiMail: Secure Email Gateway

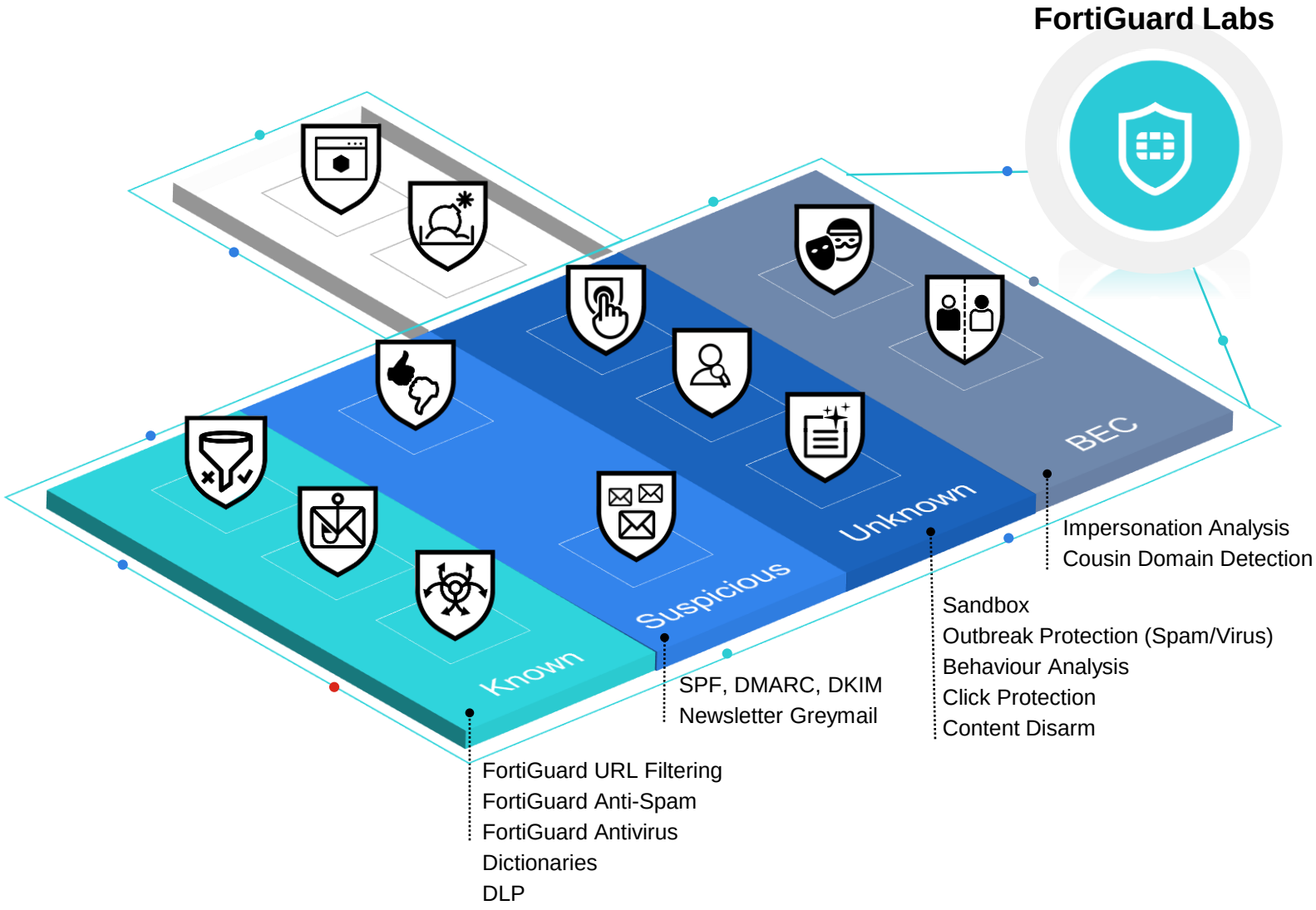
Advanced multi-layer security against:

- Known threats
- Suspected threats
- Unknown threats/Zero-days
- Impersonation attempts
- Business Email Compromise

Flexible

- Policies
- Profiles

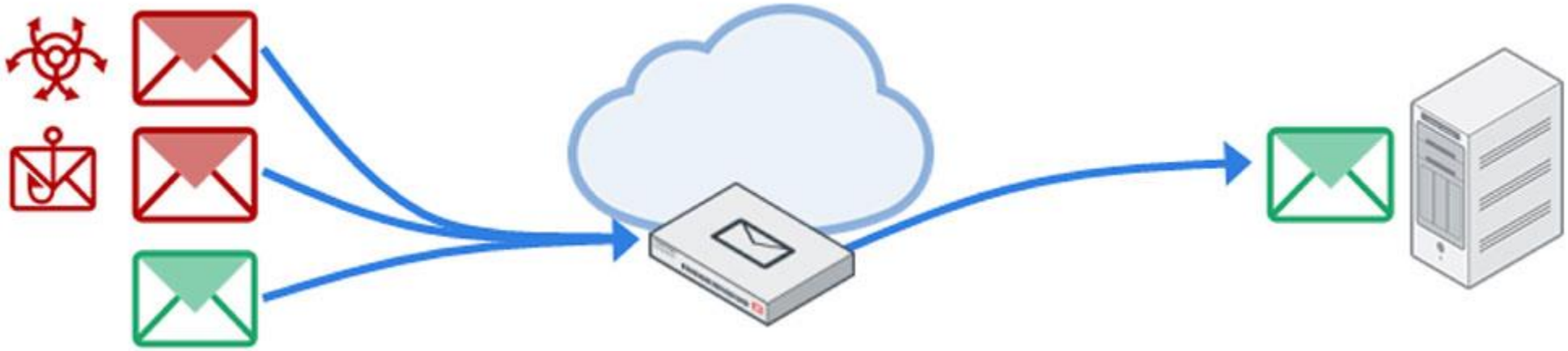
API: Microsoft 365



Gateway način rada

Gateway Mode

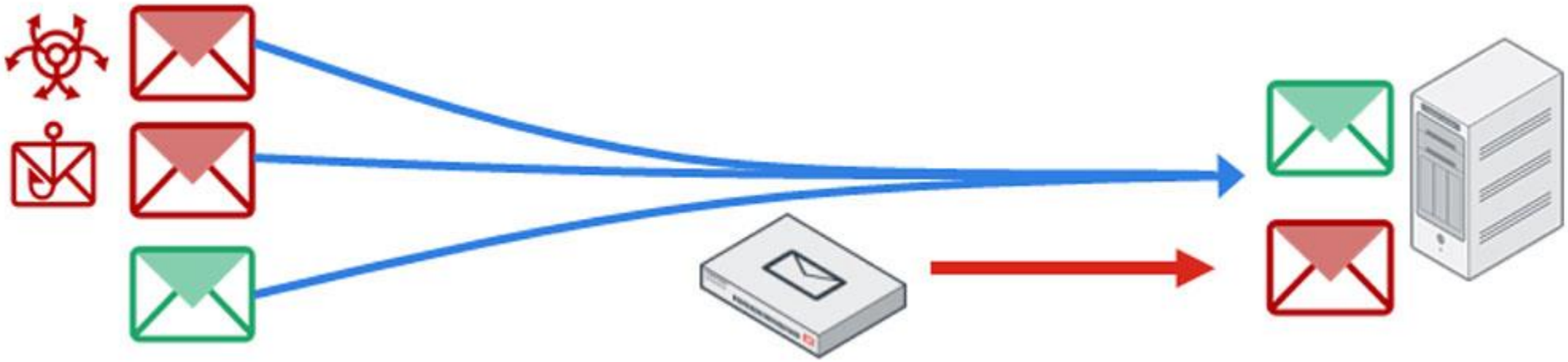
•Inbound and outbound MTA with application-layer security
•Requires a DNS MX record change or a destination NAT rule change
•All inbound email goes through FortiMail first, then is routed to a backend mail server



M365 API način rada

Microsoft 365 API Support/Clawback

•Operates out-of-line, scan and clawback threats directly from Microsoft 365 using the Graph API
•Can be used in conjunction with gateway mode



Transparentni način rada

Transparent Mode

•DNS MX record, or DNAT rule changes aren't required
•Physically located on the SMTP path
•Intercepts email, even though destination IP address isn't FortiMail

Serverski način rada

Server Mode

•Full-featured mail server that has application-layer security

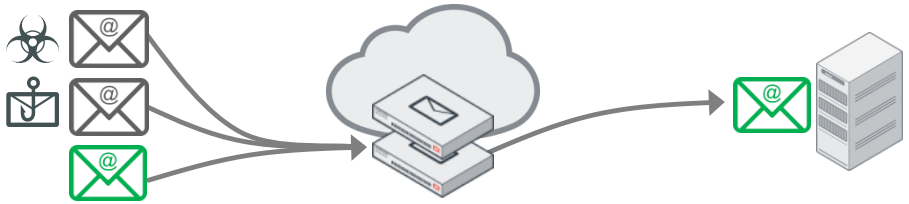
•Receives, inspects, and delivers email to user mailboxes stored in a local database

Deployment opcije

High Availability and Scalability Options

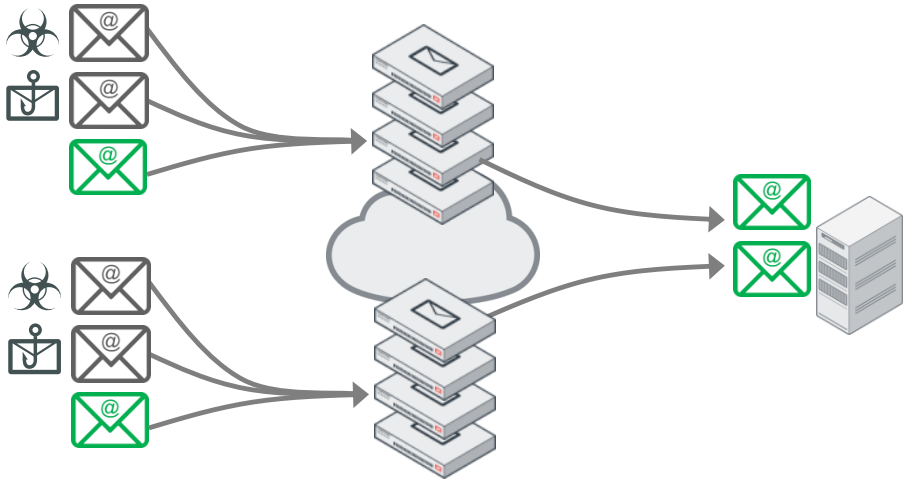
Active-Passive Cluster

- **Two-devices, full failover protection**
- Heartbeat and Service Monitoring
- Full mailbox, archive, quarantine, log and queue synchronization



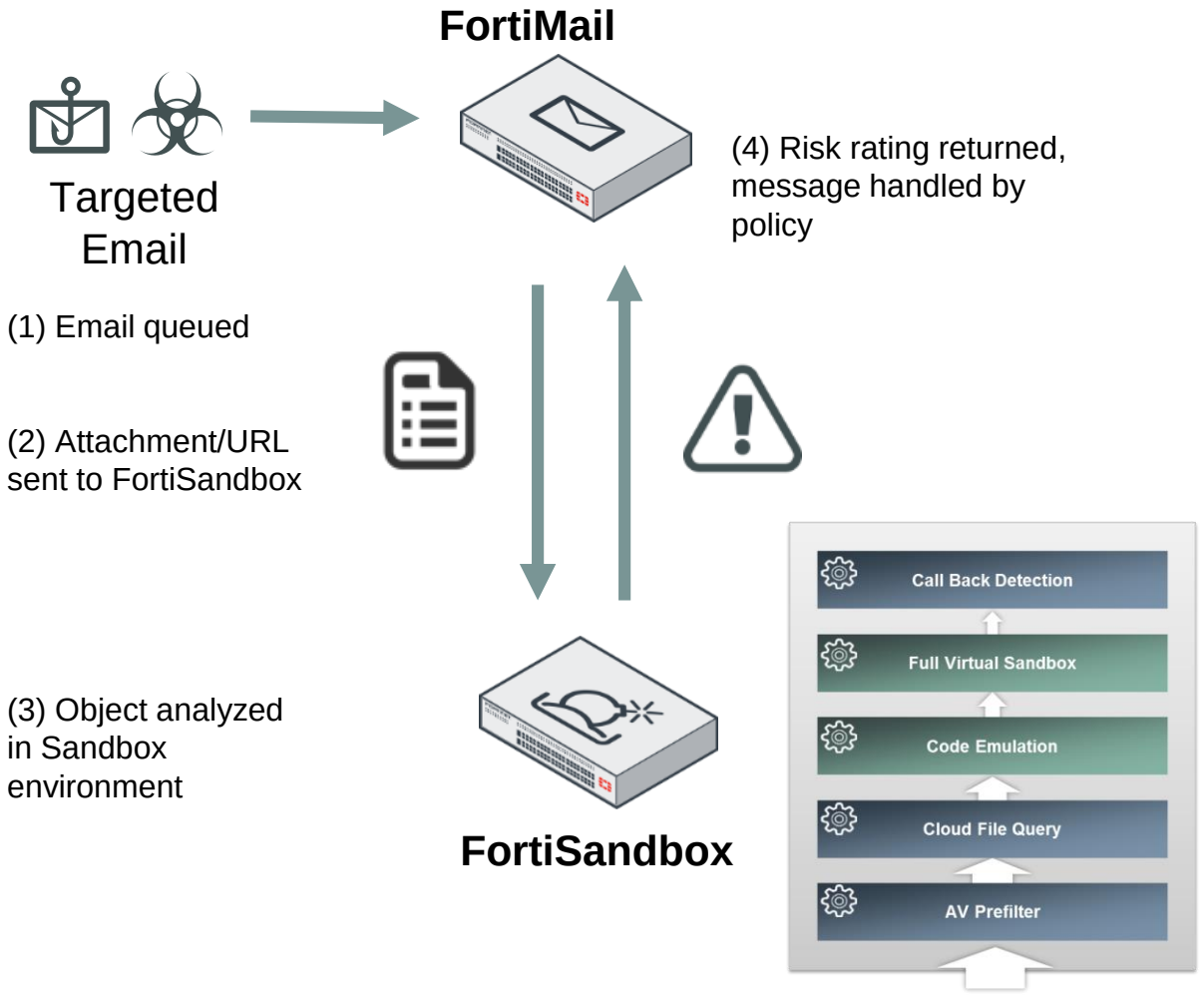
Config Only HA

- **Linear scalability suitable for the largest ISPs and Carriers**
- Centralized quarantine, management and IBE
- Enables DR and geographic redundancy
- Load balanced option using FortiADC or third party load balancer



FortiSandbox analiza prijetnji*

- **On-Premise and Cloud options**
  - FortiSandbox Cloud included in Enterprise ATP Bundle
- **FortiMail queues email and submits files and URLs to FortiSandbox for analysis**
  - AV Pre-filtering
  - Cloud results lookup - is sample already known bad
  - Analyze objects in a virtual sandbox environment
  - Callback detection – does sample try to call home for instructions
  - Assign and return a rating for the submission
  - FortiMail maintains a cache of FortiSandbox results

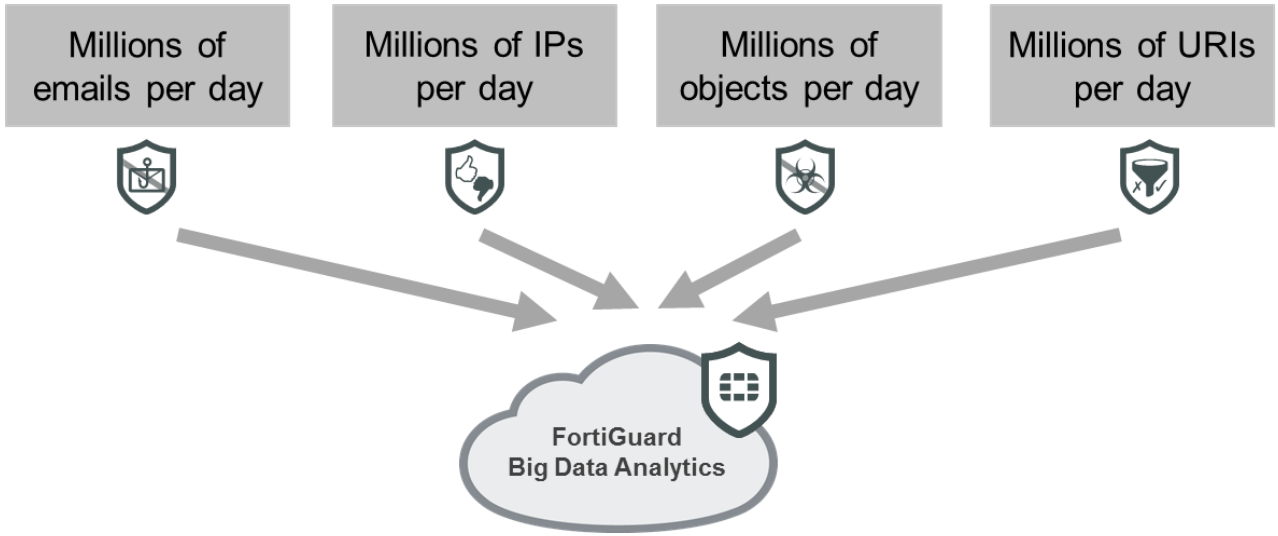


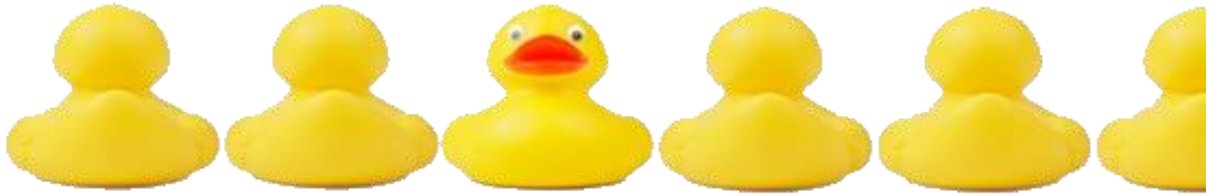
* Optional but a core part of an ATP solution

Obrana od novih prijetnji

- **FortiGuard Virus & Spam Outbreak Protection**
  - Suspicious attachments detected in known spam are blocked until full evaluation by FortiGuard Labs.
  - Cyberthreat Alliance, FortiSandbox Cloud Collaboration, FortiGuard Pre-Signature hashes

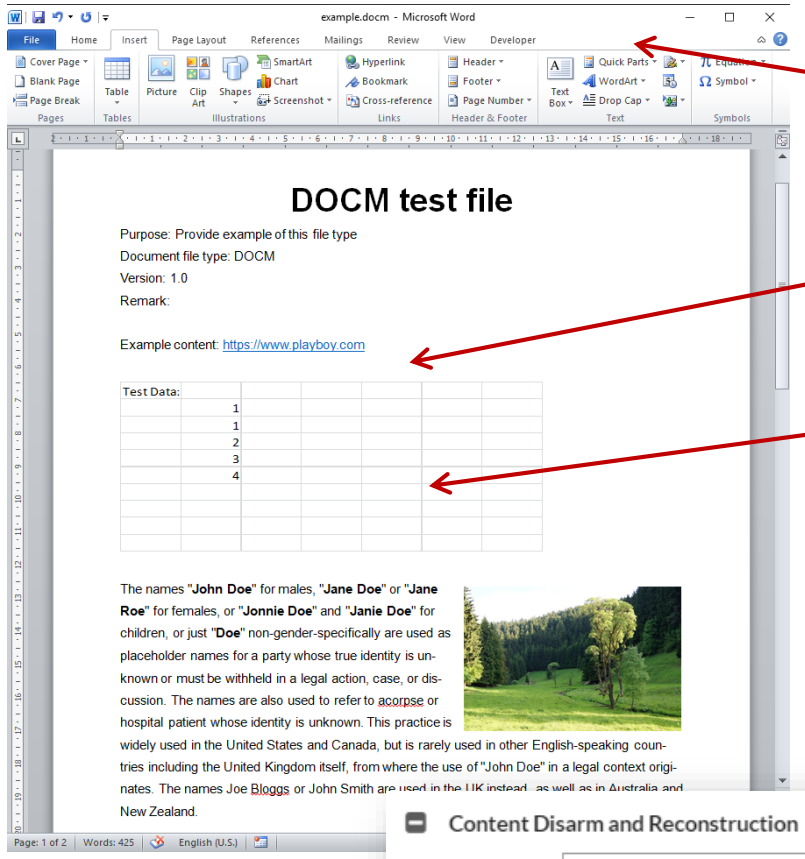
- **Behavioural Analysis**
  - Machine learning engine based on previous detections
  - Is behaviour similar to recent signature based detections?

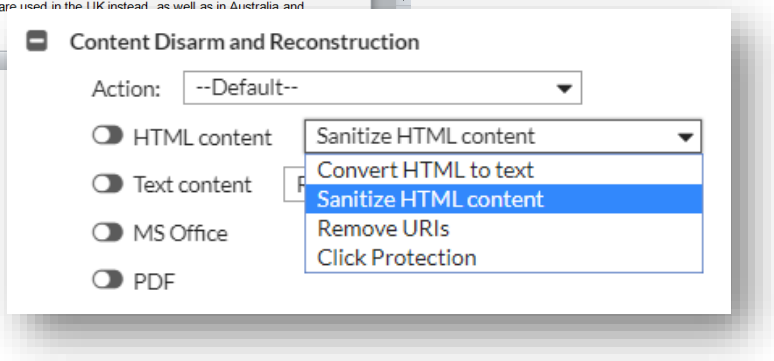




Prevencija ciljanih napada

- **Content Disarm & Reconstruction**
  - Select URI category to strip when disarming HTML
  - Select a URL filter to selectively disarm URLs in CDR
- **Password Decrypt Office Docs**
  - Password decryption of archives, PDF and Office documents
  - Passwords automatically identified
  - Common password list
  - Admin defined password list
  - Detect passwords in email body





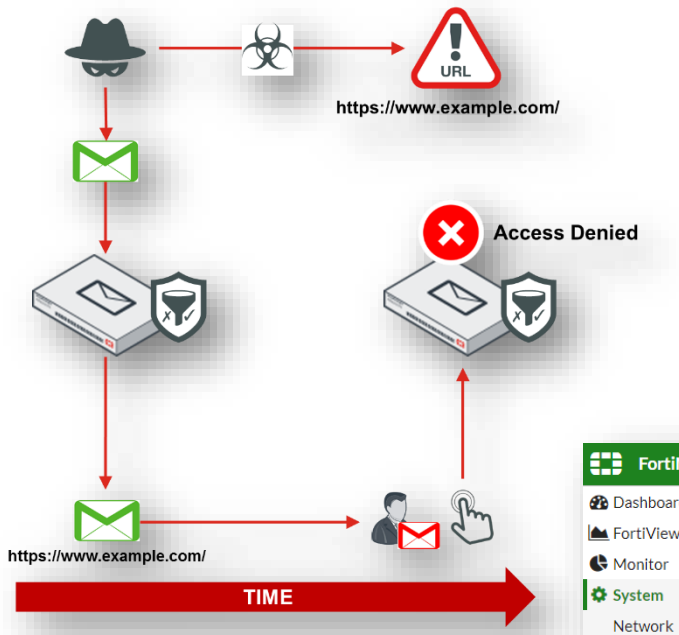
Remove macros

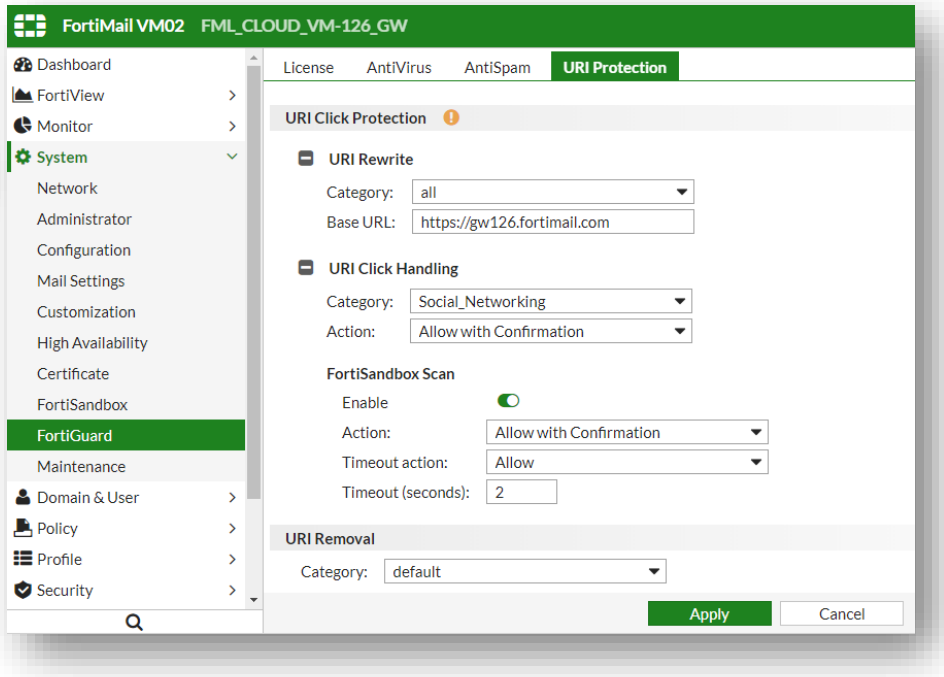
Neutralize URLs

Remove embedded content

Prevencija ciljanih napada

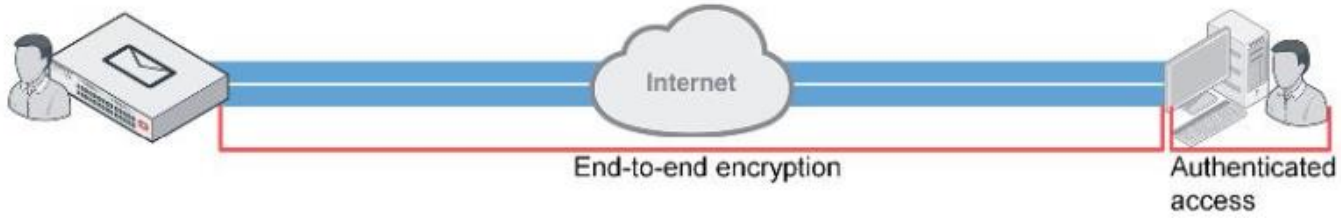
- **URI Click Protection**
  - Rewrite URLs to point at FortiMail
    - FortiMail rescans when links are clicked to detect status change since first rating
    - New URL Click Protect License
- **Benefit**
  - Extends security to the desktop

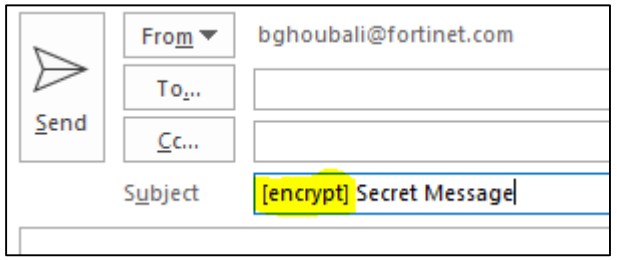


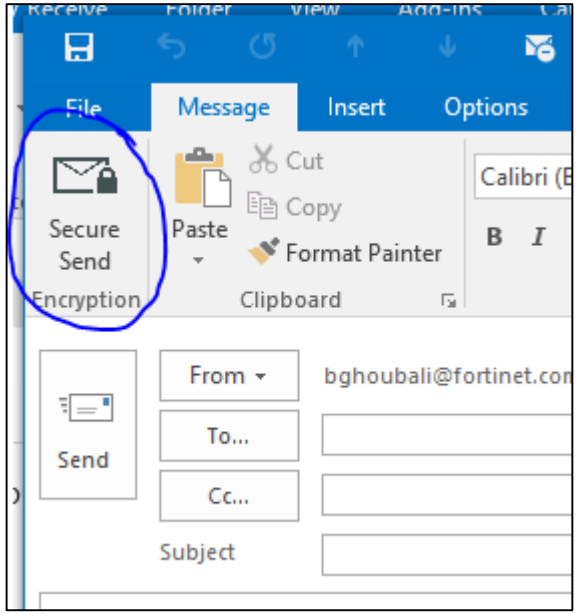


Identity based encryption (IBE)

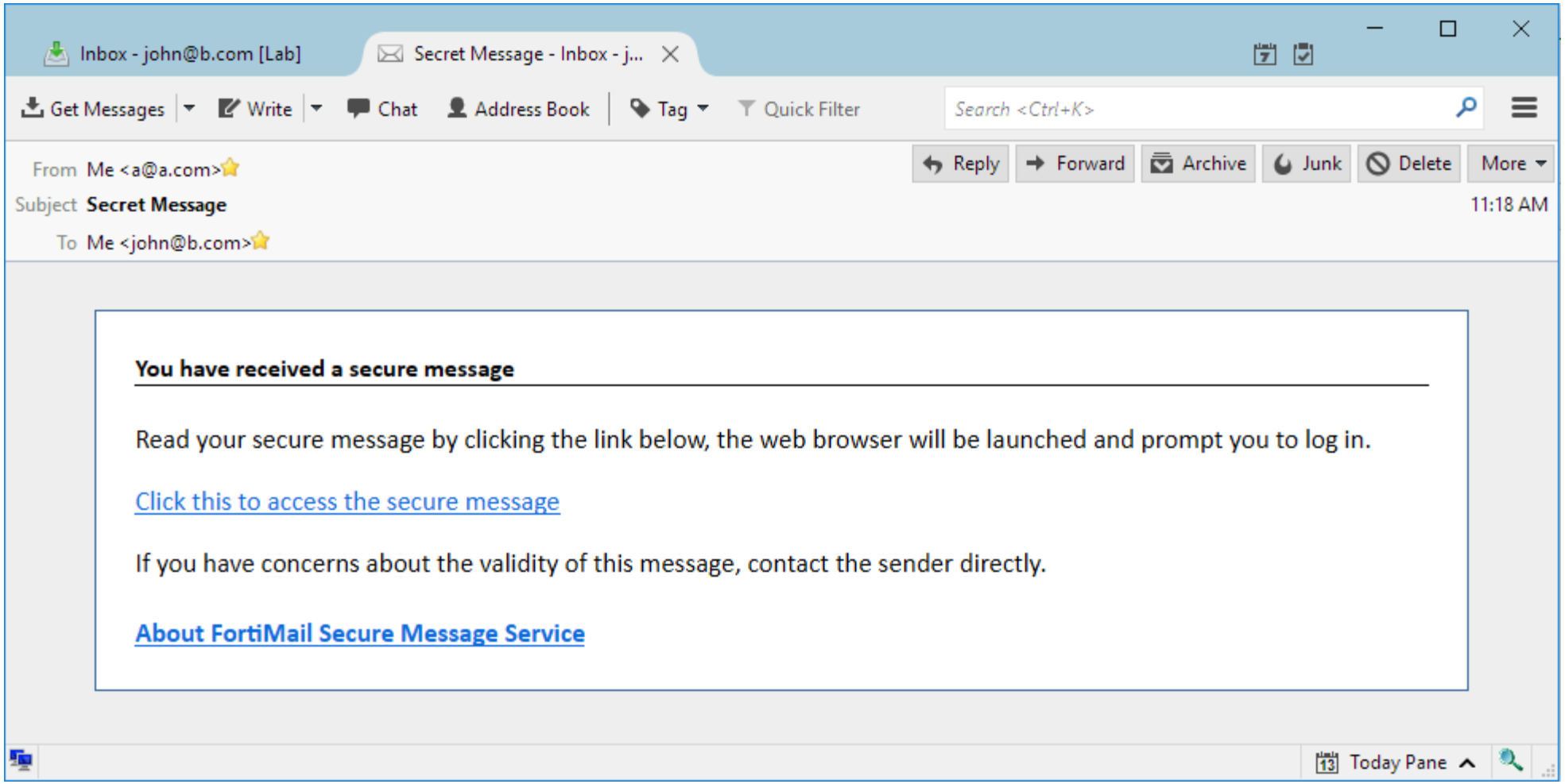
- **Identity based encryption**
  - End-to-end enkripcija mail prometa
  - Sigurno slanje osjetljivih podataka, koristi se HTTPS enkripcija
  - Push i pull opcije dohvaćanja poruka







Identity based encryption (IBE)

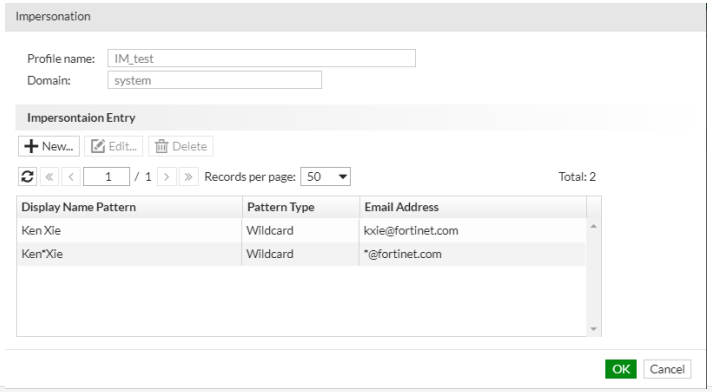


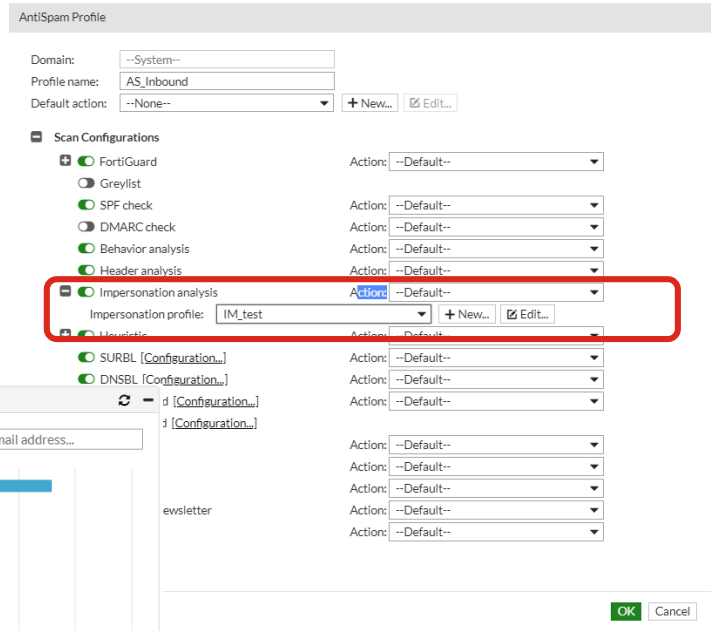
Business Email Compromise (BEC)

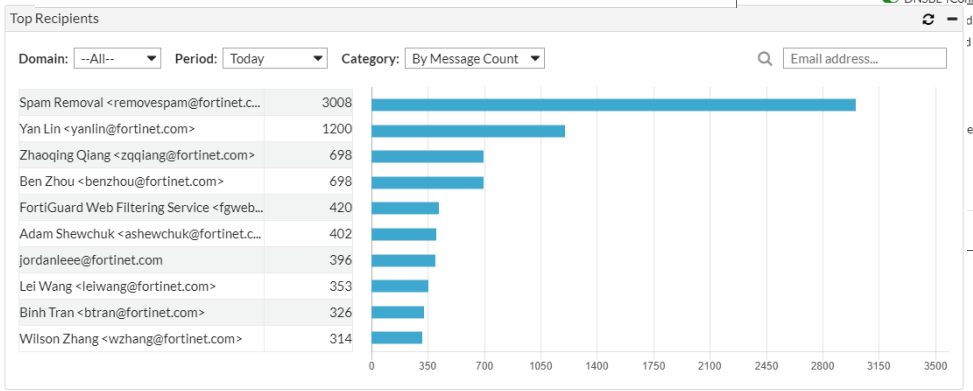
Mail From: Ken.Xie@frotinet.com
To: CFO@fortinet.com

Warning: Suspected Impersonation

- **Impersonation Analysis**
  - Identify normal Display Name / Header Address matches.
  - Detect inbound email spoofing and warn recipient
  - Prevent Whaling attacks against C-Levels
  - Automatic detection of normal address format or manual upload







Security Fabric

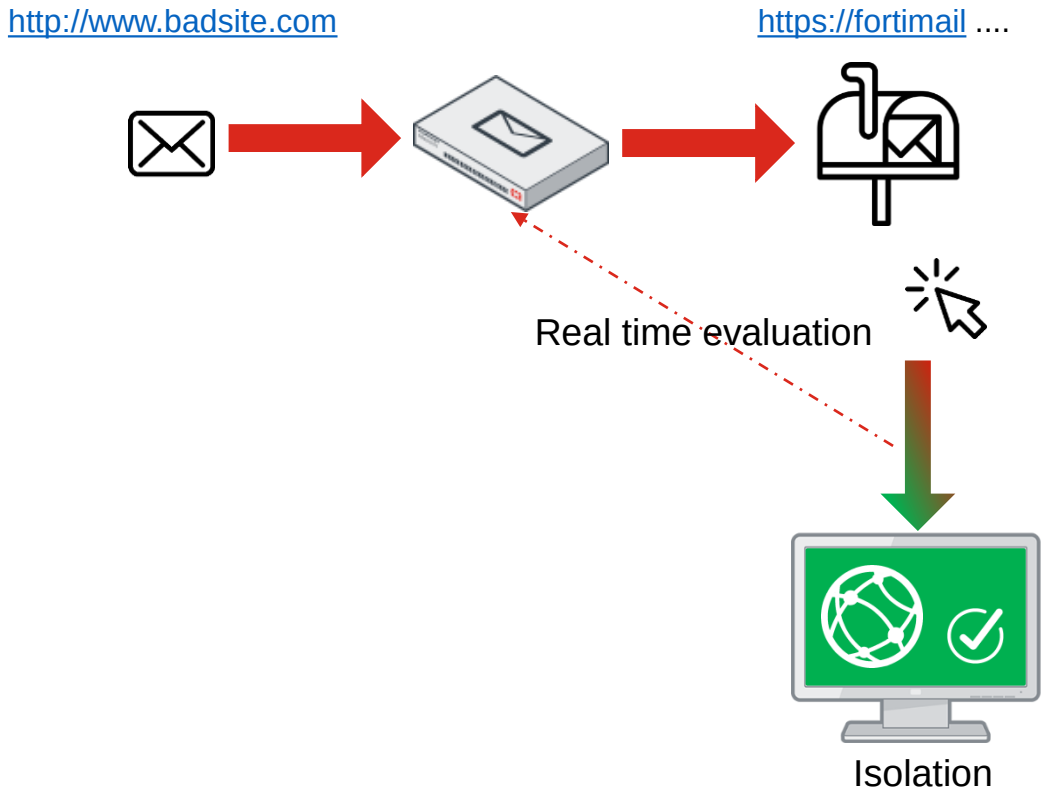
Integration with the Fortinet Security Fabric

The future of email security is platform- or fabric-enabled to counter the growing sophistication of threats and multi-vector campaigns. As part of the Fortinet Security Fabric, Indicators of Compromise and other telemetry can be shared for enhanced security across your entire security infrastructure.

IT and security teams are able to more completely connect the dots to identify multi-vector campaigns by sophisticated actors. And intensive and repetitive workflows including response can be automated to reduce the burden on security operations teams.

ATP: FortiIsolator integration

- FortiIsolator
  - Clientless remote browsing
  - Hide user IP address from malicious servers
- Can be combined with Click Protection
- Rewriting URL from email body for safer browsing and anonymity

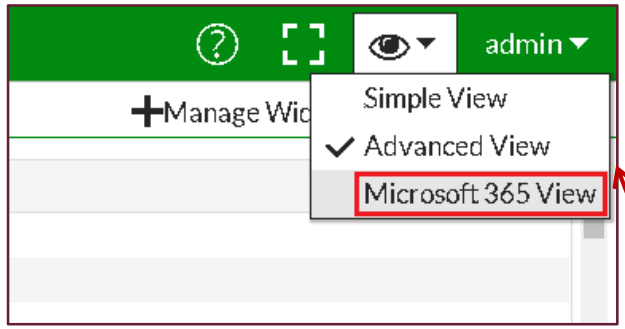


Microsoft 365 API integracija

- **API based**
  - Out-of-band security enforcement for M365
  - Utilise M365 APIs to implement post delivery search clawback
  - Requires separate license
  - Introduces dedicated menu view

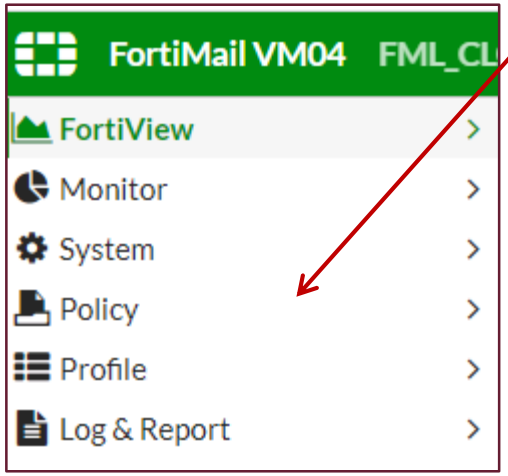
- **Real-Time Scanning**
  - Messages scanned on arrival in the user mailbox

- **On Demand Scanning / Post Delivery Clawback**
  - Messages scanned after delivery
  - Scans can be scheduled
  - Allows for manual application of actions

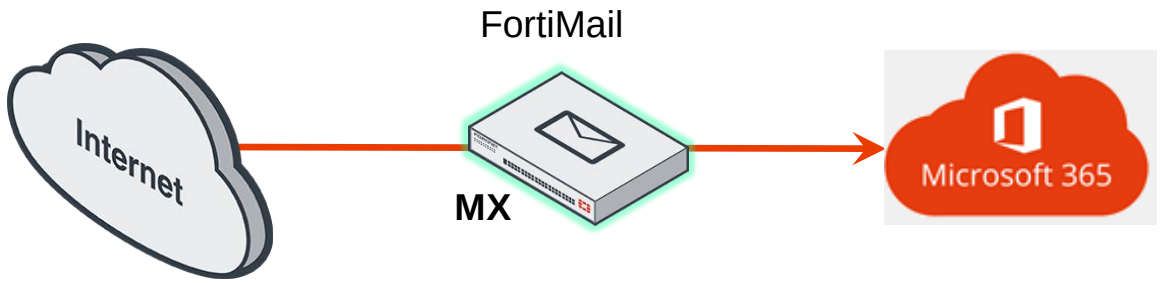


New GUI “View” for Microsoft 365 features.

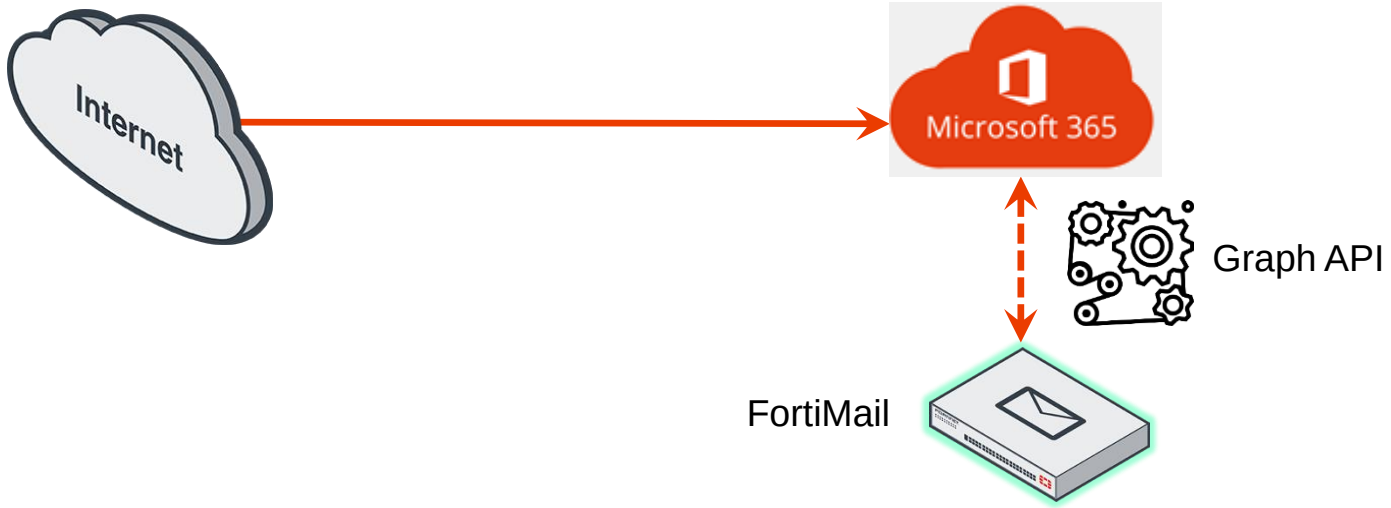
Delivers simplified view of features



FortiMail with Microsoft 365 architectures



Inline Mode

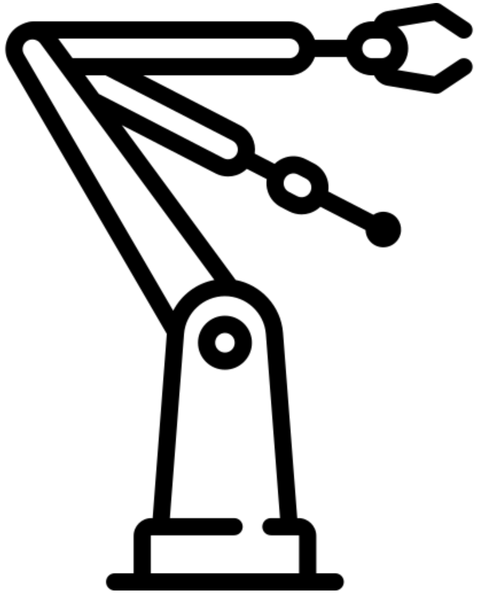


Off Path Mode

Microsoft 365

Direct API integration

- **Integrated security can be better**
  - More than 50% of O365 customer use third party SEG (Gartner)
- **FortiMail for MS 365 offers**
  - Better security and visibility
  - Remediation
- **Starting FML 400F/VM02**



24x7 + Enterprise ATP Bundle

SECURED BY FORTIGUARD®

24x7 + Base Bundle

Antispam Service
- Sender IP ratings
- Embedded URL ratings
- Content-based hashes for spam and phishing campaigns
- Separate “newsletter” identifiers

À LA CARTE

Antivirus Service
- One-to-many signatures
- Heuristic rules
- Emulation
- Decrypting/ Unpacking
- Patented content pattern recognition language (CPRL)

À LA CARTE

Outbreak Prevention
- Pre-signature intelligence
- Covers emerging spam and malware campaigns
- Leverages new sandbox and other intelligence

À LA CARTE

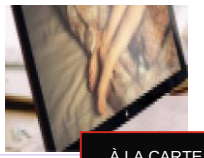
FortiSandbox Cloud
- FortiSandbox hosted by Fortinet
- Includes pre-filtering, emulation and full instrumented analysis
- Subscription-based
- No separate sandbox required

À LA CARTE

Content Disarm and Reconstruction
- Removes high risk active content
- Supports Microsoft Office and Adobe
- Can be applied by user, group or policy
- Original documents can be retained and restored

Click Protect
- Dynamic reputation query
- Determines rating at the time of user click
- Identifies recently compromised sites changed shortly after campaigns are launched

Impersonation Analysis
- Identifies spoofed email
- Dynamically builds protections for common email addresses
- Complements sender authentication



À LA CARTE

Adult Image Analysis

Microsoft 365

À LA CARTE

Direct API integration

À LA CARTE

Advanced Features

À LA CARTE

Email Continuity

Skalabilni form faktor za organizacije svih veličina

Hardware Appliances

- 6 models
- Support for 10GE

Virtual Appliances

- 6 VM models
- CPU- and Domain- based
- Perpetual licensing

EU
North America

SaaS

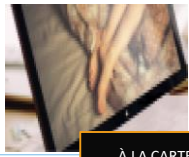
- Gateway or Server Mode
- Standard or Premium
- Per User Per Year

FortiMail Cloud / SaaS : per mailbox

	Gateway	Gateway Premium	Gateway Premium O365	MSSP	MSSP monthly
AntiSpam / AntiVirus	✓	✓	✓	✓	✓
Cloud Sandboxing		✓	✓	✓	✓
Microsoft 365			✓		
Domains*	10	10	10	2000	2000
Billing	Prepaid	Prepaid	Prepaid	Prepaid	Consumption
Yearly Base Fee					✓
Mailbox Counting	Defined when service is purchased				Variable

À LA CARTE

Email Continuity



À LA CARTE

Adult Image Analysis

* «Domains» refers to the number of Protected Domains and sub-Domains that can be created
Note that Associated domains can be used for higher need of domains.

Fortinet FortiMail								
	Stopped	Rejected	Edited (deny)	Junk (deny)	Junk Folder	Inbox	Edited (allow)	Junk (allow)
Social	43	1	0	0	0	1	0	15
Phishing	43	5	3	9	0	0	0	0
Malware	65	0	5	0	0	0	0	0
Business Email Compromise	20	0	0	0	0	0	0	0
TOTAL	171	6	8	9	0	1	0	15

Microsoft Office 365 Advanced Threat Protection								
	Stopped	Rejected	Edited (deny)	Junk (deny)	Junk Folder	Inbox	Edited (allow)	Junk (allow)
Social	11	0	0	0	30	19	0	0
Phishing	10	0	3	1	0	1	34	11
Malware	47	1	7	0	1	14	0	0
Business Email Compromise	0	0	0	0	20	0	0	0
TOTAL	68	1	10	1	51	34	34	11

Izvor: SE Labs

Fortinet FortiMail	Stopped	Rejected	Edited (deny)	Junk (deny)	Junk Folder	Inbox	Edited (allow)	Junk (allow)
Social	43	1	0	0	0	1	0	15
Phishing	43	5	3	9	0	0	0	0
Malware	65	0	5	0	0	0	0	0
Business Email Compromise	20	0	0	0	0	0	0	0
TOTAL	171	6	8	9	0	1	0	15

Google G Suite Enterprise	Stopped	Rejected	Edited (deny)	Junk (deny)	Junk Folder	Inbox	Edited (allow)	Junk (allow)
Social	10	0	0	0	40	10	0	0
Phishing	9	0	0	28	0	0	0	23
Malware	0	45	0	0	2	13	0	10
Business Email Compromise	1	0	0	0	0	19	0	0
TOTAL	20	45	0	28	42	42	0	33

Izvor: SE Labs

99.9%

Detection of malicious emails across malware types and across malware families

94%

Overall Detection Rate

99.78%

Spam Catch Rate

100%+

Wildlist Detection Rate

Case Study

Tommy je prema objavljenim podacima Agencije za zaštitu tržišnog natjecanja u 2020. godini i službeno **postao lider u maloprodaji Dubrovačko-neretvanske županije**.

To je vrlo značajno postignuće za našu tvrtku, jer dodatno potvrđuje da je Tommy **vodeći trgovački lanac u cijeloj Dalmaciji po svim kriterijima,** s obzirom da smo i u ostalim dalmatinskim županijama (Splitsko-dalmatinskoj, Šibensko-kninskoj i Zadarskoj) zadržali vodeće pozicije koje smo prethodno, kroz godine uspješnoga razvoja dostizali.

Također, naša tržišna pozicija jača i u drugim županijama, jednako kao i tržišni udio na nacionalnoj razini. Rezultat je to povjerenja koje su nam dali naši kupci, **prepoznajući cjelovitost i kvalitetu naše ponude**, dostupnost naših prodajnih mjesta te uslužnost i profesionalnost našega osoblja.

Liderska pozicija koju smo dostigli jasnim planom razvoja baziranom na **kontinuiranim ulaganjima u rast i razvoj poslovanja,** obvezuje nas da i dalje primjenjujemo poslovnu strategiju u kojoj su kupci njihove potrebe uvijek u prvom planu.

Veliki doprinos unapređenju pozicije Tommy-ja daju i **stalne inovacije, te uvođenje dodatnih prodajnih kanala i usluga** koje smo implementirali u prethodnom razdoblju; **online prodaja putem web shopa, usluga preuzimanja paketa na prodajnim mjestima, mogućnost plaćanja računa na Tommy blagajnama i e-punionice za vozila.**

Svakodnevno odgovaramo tržišnim izazovima, a naša je ambicija da putem realizacije budućeg razvoja dodatno ojačamo svoje pozicije, ne samo kao prepoznatljiv i relevantan trgovački lanac, već i kao vrlo poželjan poslodavac te društveno odgovorna kompanija.

TOMMY
ZNA ŠTO VOLIŠ.

- **6. trgovački lanac u RH** s kontinuiranim rastom tržišnog udjela.
- **19. tvrtka** po ukupnom prihodu u **RH.**
- U 2019. godini **ostvareno 3 milijarde i 100 milijuna kuna prihoda** uz rast od 10 % u odnosu na prethodnu godinu.

- **217** prodajnih mjesta u RH, rasprostranjenih u 8 hrvatskih županija i gradu Zagrebu.
- **4 prodajna formata**
  HIPERMARKET
  MAXIMARKET
  SUPERMARKET
  MARKET
- **više od 120.000 m^2 ukupnog korisnog poslovnog prostora.**

- Primjena visokih ekoloških standarda kao potpora održivom razvoju i očuvanju prirode i okoliša.

- **4100 zaposlenika**

TOMMY
ZNA ŠTO VOLIŠ.

- Informacije o sustavu:
  - Hibridna instalacija - lokalni i cloud mail serveri
  - 4500 korisničkih računa
- Problemi prije implementacije:
  - SPAM
  - Blacklistanje vlastitih javnih IP adresa
  - Nedovoljne kontrole dolaznih i odlaznih mailova
  - Nedostatak izvještaja

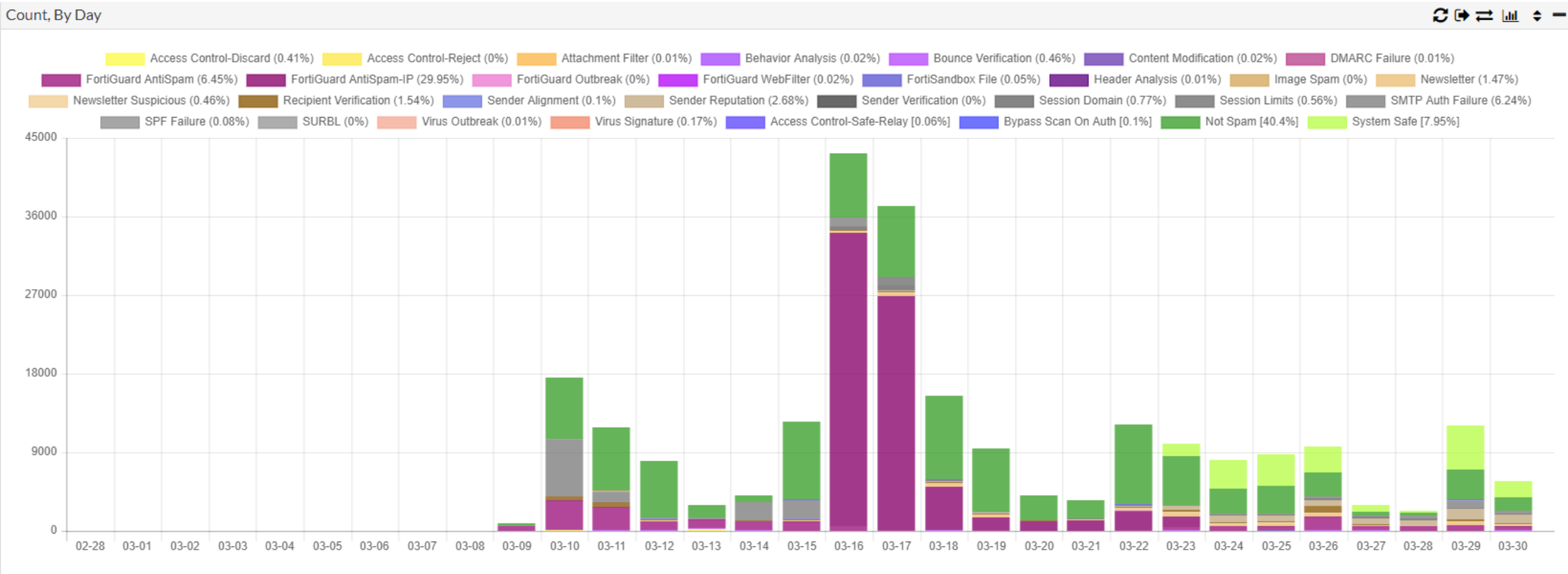
TOMMY
ZNA ŠTO VOLIŠ.

Komentar naručitelja:

„Radi dobro, dodatna konfiguracija od ranije definiranih pravila je minimalna, odbaci veliku većinu spama, minimalne korekcije na dnevnoj bazi su potrebne za rad sustava.

Također nismo imali nijedan blacklist adresa od uvođenja FML.”

Statistika nakon implementacije FortiMail-a



FortiMail 7.0.0: Feature overview

PRODUCTIVITY

- FortiMail Cloud: Email continuity

SECURITY

- TLS profile
  - DANE
  - TLS version
- Session
  - Pipelining check
- AS
  - DKIM enforcement
  - SPF/DKIM safelist
  - Cousin domain detection
- AV
  - FSA remove URL
- SRS
- Auth Reputation
- CA repository

OPERATION

- Dashboard: new widgets
- FortiView: outbreak stats
- Template: MESSAGE_ID variable
- Search
  - System Quarantine enhanced
  - Log advanced and new Task search
- AS multi-action
- CDR workflow
- Document block/safe list entries
- Archive : new criteria for deferred emails
- Domain : comment field
- System Quarantine for Domain admin
- Delegate Domain admin creation

FortiMail 7.0.0: Feature overview

USER EXPERIENCE

- UI rework
  - FGD tabs
  - Security/Others
- Offensive terms
- Resource profile update
- New admin profile

LICENSING

- MSSP renamed
- MSSP new maximums

DEPLOYMENT

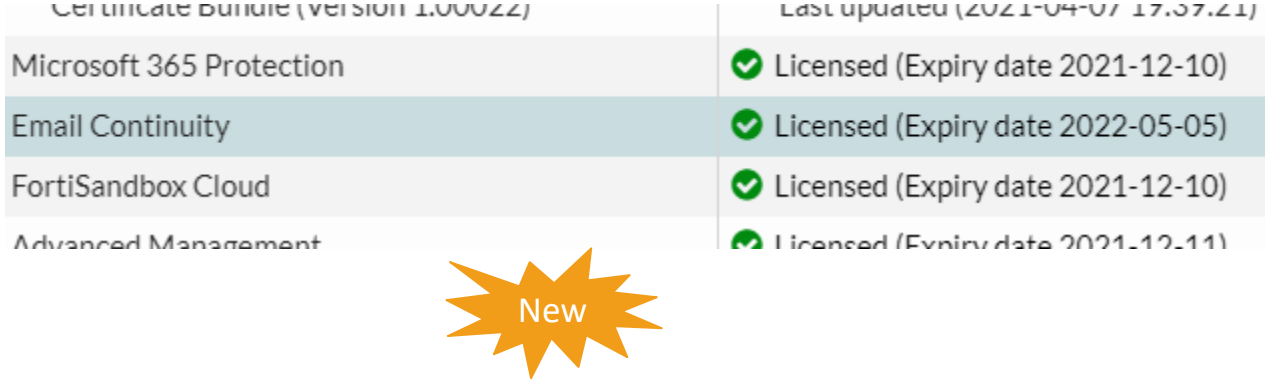
- Config-Sync selective attr
- New Receive Action in ACL
- FSA datacenter

FortiMail - Business Email Continuity (BEC)

- Mitigate the impacts of backend downtime
  - Keeping end users productive during business outages
  - Providing access to their emails from the Gateway

- Reduce user recovery time to near zero
  - They can access queued email directly on FortiMail

- Adds to MS 365 security
  - Microsoft suffered several down times in the past



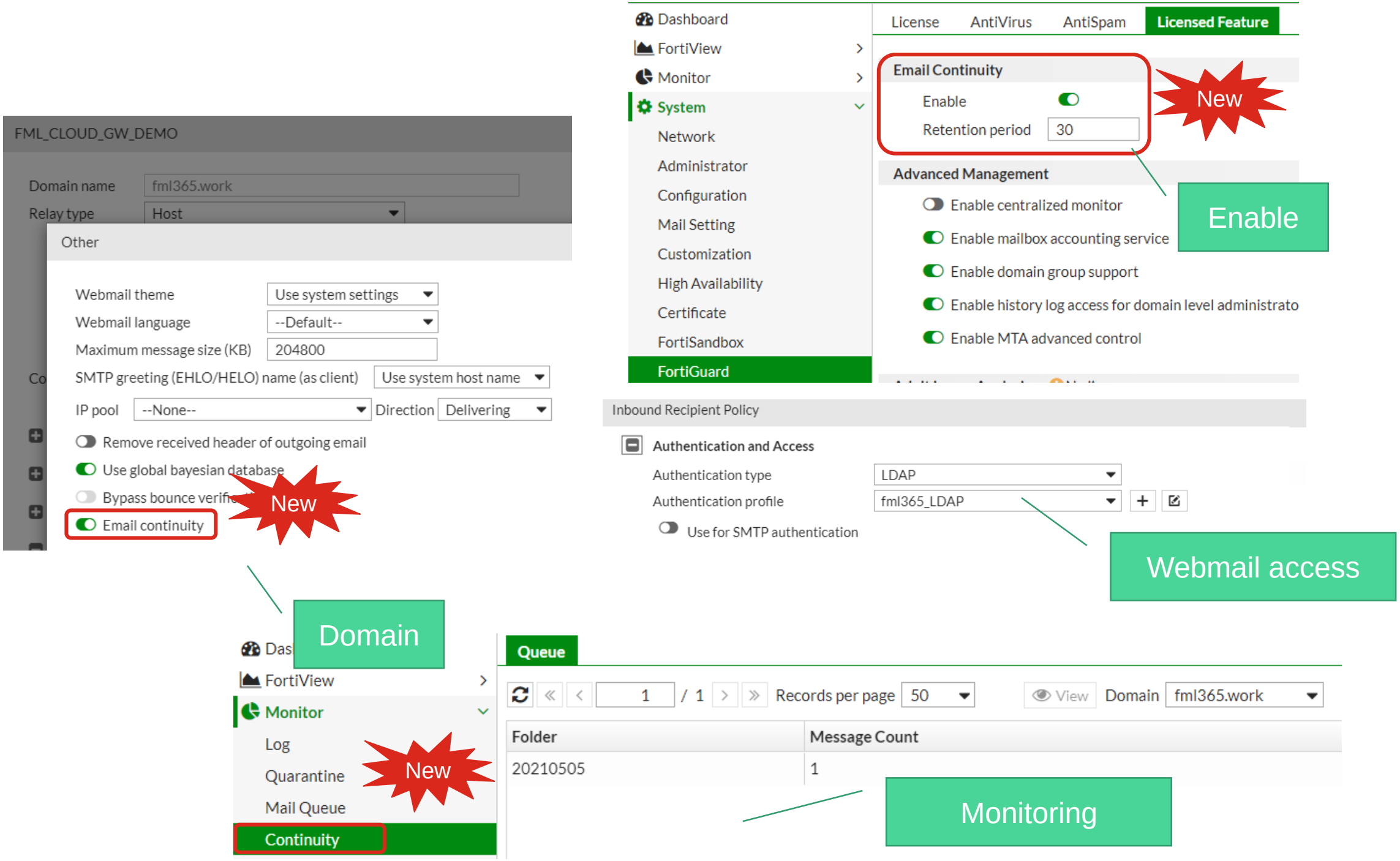
New

FortiMail - Business Email Continuity (BEC)

- Cloud
  - Should be equal to the number of mailboxes
  - FC-10FMLC0-309-02-DD

- HW/VM
  - From VM02 and 400F
  - Single SKU
  - FC-10-{FE4HF/…/M3K2E/VM02/…/VM32}-309-02-DD

- Not yet available in VM S-Servies


FML_CLOUD_GW_DEMO
Domain name
fml365.work
Relay type
Host
Other
Webmail theme
Use system settings
Webmail language
--Default--
Maximum message size (KB)
204800
SMTP greeting (EHLO/HELO) name (as client)
Use system host name
IP pool
--None--
Direction
Delivering
Remove received header of outgoing email
Use global bayesian database
Email continuity
New
Dashboard
FortiView
Monitor
System
Network
Administrator
Configuration
Mail Setting
Customization
High Availability
Certificate
FortiSandbox
FortiGuard
License
AntiVirus
AntiSpam
Licensed Feature
Email Continuity
Enable
Retention period
30
New
Advanced Management
Enable centralized monitor
Enable mailbox accounting service
Enable domain group support
Enable history log access for domain level administrato
Enable MTA advanced control
Enable
Inbound Recipient Policy
Authentication and Access
Authentication type
LDAP
Authentication profile
fml365_LDAP
Use for SMTP authentication
Webmail access
Domain
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Monitor
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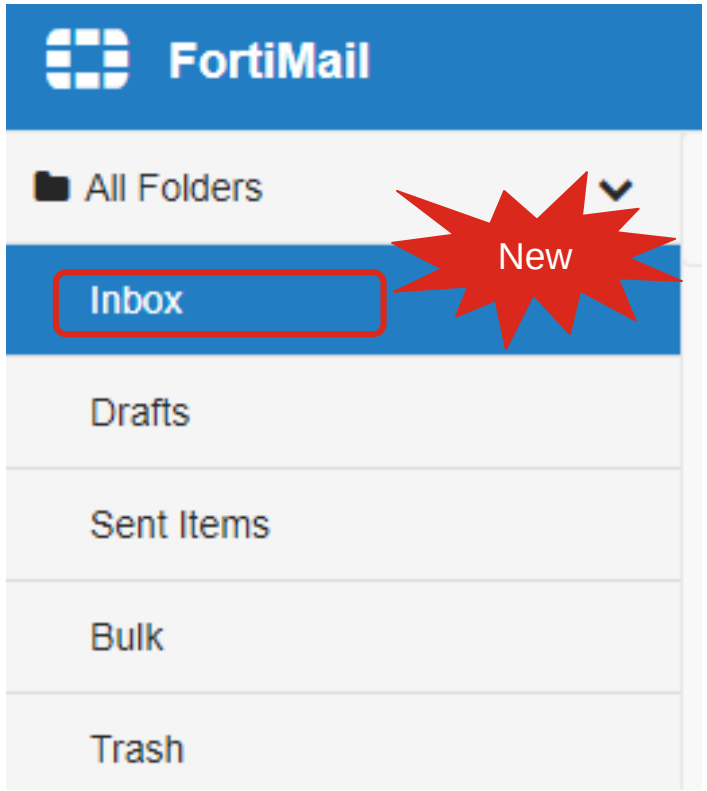
1
Monitoring

Webmail access



FortiMail – Secure Email Gateway

- Sigurnosne rizike koje dolaze putem maila treba ozbiljno shvatiti, kao i pitanje cloud email zaštite
- Jedan od najbolje ocijenjenih sustava za mail zaštitu po nezavisnim testovima
- CTAP - uključuje i Email Risk Assessment

- Način rada: Gateway, M365 API, Transparent, Server
- Izvedbe: HW, VM, cloud, SaaS
- URI i document SandBoxing, IBE, CDR, Click protection

Fortinet i Integra Group

Integra Group – Engage Expert partner!

ENGAGE

FORTINET EXPERT PARTNER

Integrator

Q & A

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